MIT GRADUATE STUDENT LUNCH SEMINAR
SPRING 2017

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Title: Bubbling for geometric wave equations

Abstract: In the 80's Struwe proved that a solution to the harmonic map heat flow from a Riemann surface develops singularities by concentrating its energy in bubbles, i.e., dynamically rescaled harmonic maps. Then in the early 2000's Struwe showed that the singularity formation for critical geometric wave equations such as wave maps and hyperbolic Yang Mills equations must exhibit analogous behavior – any solution that concentrates energy must form at least one bubble along at least one sequence of times. In the talk, we'll discuss a few recent advances in our understanding of bubbling for geometric wave equations and how these relate to bubbling phenomena for geometric flows and to what's referred to as the solution resolution conjecture. This will include some forthcoming joint work with Jacek Jendrej where we classify the dynamics of solutions at the minimal energy threshold where two-bubble solutions can develop.